CASIO®

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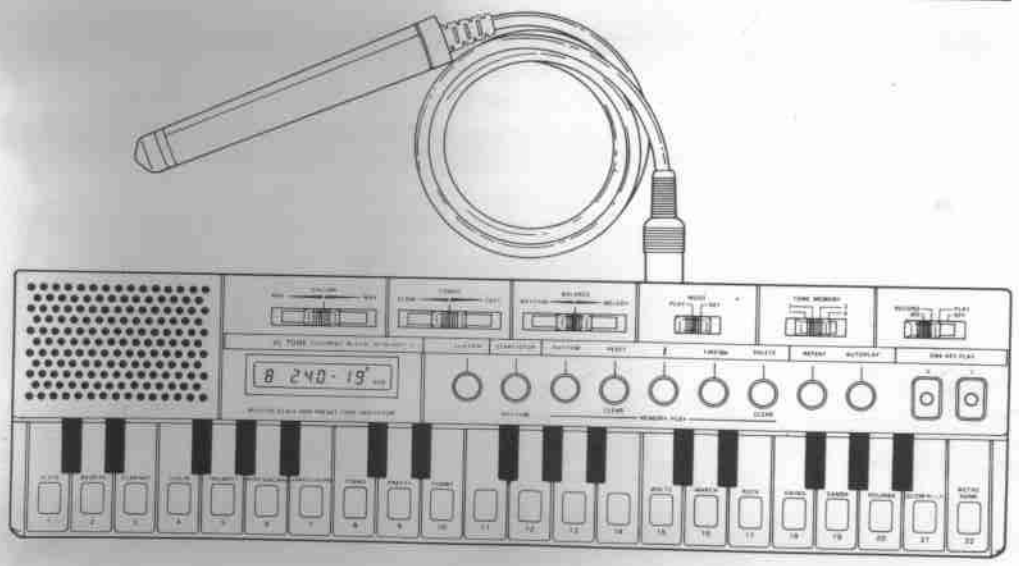
ELECTRONIC
MUSICAL
INSTRUMENT

INSTRUMENTO
MUSICAL
ELECTRONICO

CASIO

VL-TONE

VL-5



OPERATION MANUAL
MANUAL DE OPERACION

■VL-TONE VL-5 Features

1 One Key Play — permits playing by simply pressing one key.

After storing a series of notes they can be played back in correct sequence by pressing just one key, enabling you to form them into a melody. This permits simple tunes to be played even by a person with no musical experience.

2 Auto-Play — automatically plays both rhythm and melody.

Following the storage of an entire melody (note pitch and duration) it can be played back automatically or integrated with music which has been stored in the MS memory, together with the rhythm.

3 MS memory — permits simple storage even by a person who cannot read a musical score.

By passing the Bar Code Reader (standard accessory) over the musical score, which has been printed as a bar code, the pitch and duration of notes from popular melodies can be played simply and accurately by anyone.

4 Manual Memory — permits your favorite selections to be freely stored.

This is a method of storing note pitch using the keyboard keys and storing note duration using One Key Play. Your favorite melody or original composition can be stored, giving free expression to music using your own feelings and ideas.

5 10 catching preset sounds — let your music match your mood.

10 instrumental sounds, such as the flute, harpsichord, violin etc., are preset in the VL-5 to allow you to move throughout the whole spectrum of music from rock to classical.

6 8 auto-rhythms — for group-style playing with crisp, clear rhythmic backgrounds.

There are a total of 8 different rhythms such as swing, samba, rock, etc. Tempo and balance adjustment can be accomplished without restriction. This realistic accompaniment helps improve your tuning and sense of rhythm.

7 4-note polyphonic — allow the enjoyment of chord playing.

This is a 4-note polyphonic which simultaneously produces up to 4 notes.
When using the preset sounds of piano or harpsichord, the true essence of a chord playing is heard and when using the preset sounds of flute or trumpet, the sounds of an ensemble can be simulated.

8 Compact, lightweight with 2-Way power source — permits playing anywhere.

With numerous functions built in, the VL-5 is only 32 cm wide and weighs 614 g. It's really compact! Furthermore, the unit provides a 2-way power source which allows battery operation, but also, household AC power by connecting the AC adaptor (optional). You can enjoy playing anytime, anywhere!

■Power Supply

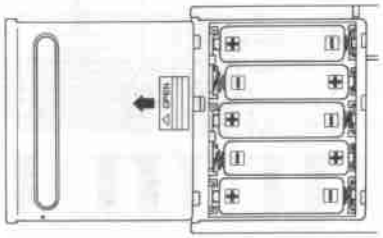
This product has a 2-way power supply system which permits dry batteries or domestic AC power to be used.

Dry batteries

- Use five UM-3 type (AA-size) dry batteries.
- Battery life varies depending on battery type and usage, so please refer to specifications on page 24.
- When batteries are weak, sound quality and musical intervals become irratic and there will be excess noise. At this time, replace the batteries.

[How to install batteries]

Remove the battery compartment cover from the bottom of the instrument.
Be sure to properly match the ⊕ and ⊖ terminals. When replacing batteries, all 5 batteries should be replaced at the same time to insure longer life.



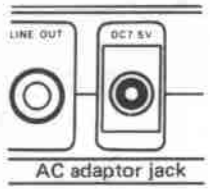
Note: When the instrument is not used for a long period, remove the batteries to prevent possible damage to the product from battery leakage.

AC power

- If an optional AC adaptor (AD-1) is connected, AC domestic power can be used.
- If the AC adaptor is connected, battery power is automatically cut off, extending battery life.

Notes

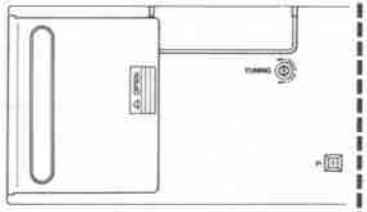
- Be sure to use the Casio exclusive AC adaptor (AD-1).
- If the adaptor is used for a long time, it will become slightly warm, but there is no need to worry since this is normal. However, the adaptor should be removed from the outlet when the instrument is not in use.



AC adaptor jack

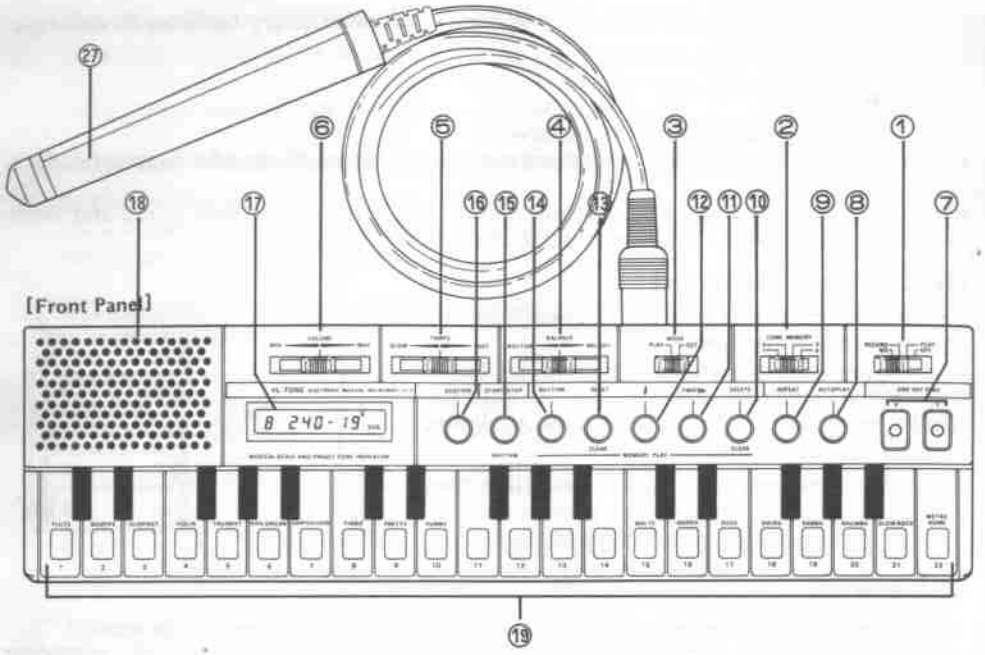
NOTE

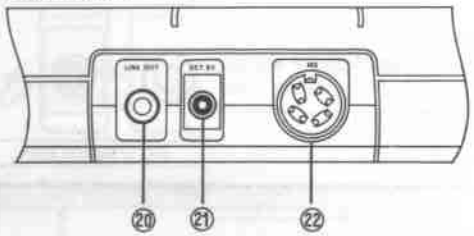
After battery replacement and AC adaptor connection or disconnection, be sure to proceed as follows prior to operation of the instrument.
1) Set the main switch to "PLAY" or "RECORD".
2) Press the P button on the back of the unit with a pointed object (such as a match stick).

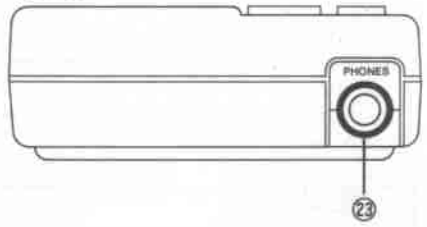


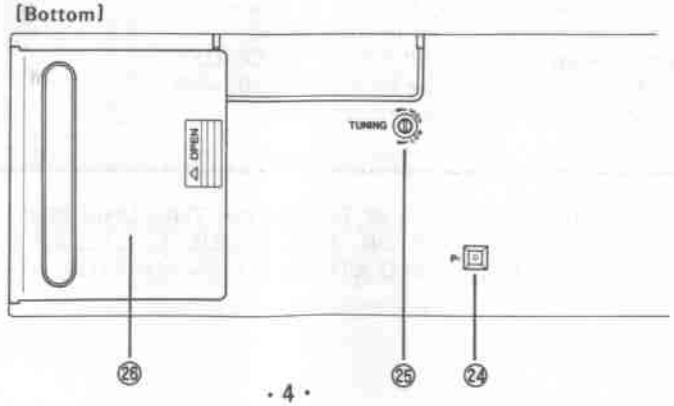
CAUTION – WHERE USED FROM THE MAINS THIS UNIT MUST ONLY BE USED WITH A CASIO MAINS ADAPTOR. THIS IS DUE TO THE RISK OF DAMAGE TO THE UNIT SHOULD IT BE USED WITH A MAINS ADAPTOR OTHER THAN CASIO MAINS ADAPTOR.

■Name of Each Section and Its Method of Operation









① Main Switch
Turns power ON/OFF and performs function switching.
- **OFF** . . . . . Power is cut off.
- **PLAY** . . . . . When Auto-Play, One Key Play or Manual Play are used.
- **RECORD** . . . . . When manual memory is used.
- **MS** . . . . . When using MS memory.

Note: Slide the selector accurately to each position.

② TONE MEMORY selector switch
Permits selection and storage of 4 preset sounds from among the 10 preset sounds. Preset sounds can be freely changed by moving the selector, even during play.

③ MODE switch
Place in the SET position when storing preset sounds or a rhythm.

④ BALANCE control switch
Adjusts the balance between the melody and the rhythm. When moved to the left, the rhythm volume is increased.

Note: The melody is not completely suppressed even if the switch is moved all the way to the left.

⑤ TEMPO control switch
Adjusts the speed of the rhythm and auto-play. The more it is moved to the right, the faster the speed.

⑥ VOLUME control switch
Adjusts the whole volume level of the unit from minimum (left) to maximum (right).

⑦ ONE KEY PLAY keys
Press one of these keys when performing One Key Play or when storing note length (duration). The stored notes will come out in sequence each time the key is pressed. Either key may be pressed. Pressing the two keys alternately permits more proficient fast playing.

⑧ AUTO-PLAY button
When pressed prior to or during Auto-Play, the stored melody will be automatically played.

⑨ REPEAT button
Prior to or during Auto-Play, if this button is pressed, play is repeated the same number of times as the button is pressed.

⑩ DELETE button
This deletes the contents of the displayed memory.

⑪ FWD (Forward) button
Advances displayed digits (notes) one step each time it is pressed.

* ⑩ and ⑪ are used when correcting the stored data. (See page 20)

⑫ REST button
Press this button for a rest when storing a melody.

⑬ RESET button
Press this button prior to performing Auto-Play or One Key Play. Also, press to stop Auto-Play during play.

⑭ RHYTHM button
Designates the location where the rhythm begins while storing a melody.

⑮ START/STOP button
Auto-Rhythm starts or stops each time the button is pressed.

⑯ SUSTAIN button
" SUS " comes ON and goes OFF each time the button is pressed. If " SUS " is ON, the sustain effect produces a lingering sound even after your fingers are taken off the keys.

⑰ Display
Displays preset sound, rhythm, note pitch and number of steps.

⑱ Built-in Speaker
This is a small, high performance speaker.

⑲ Keyboard
Used when performing Normal Play (Manual Play) or when storing note pitch. Since there are 37 keys with 3 octaves and 4-note polyphonic, wide-ranging musical sounds can be enjoyed. For more versatility, when the MODE switch is in the SET position, white keys 1 through 10 become preset sound select keys and white keys 15 through 22 become rhythm select keys.

⑳ Line Out Jack (mini plug specification)
This jack is used when connecting to an instrumental amplifier or home audio equipment, etc.

㉑ AC Adaptor Jack
For connection of optional AC adaptor (AD-1).

㉒ MS Jack
For connection of Bar Code Reader MS-1 (standard accessory).

㉓ Headphone Jack
For connection of optional headphone (CP-2).

㉔ P Button
Press this button after changing batteries or after connecting or disconnecting the AC adaptor.

㉕ Pitch Control Screw
Permits up or down adjustment of whole musical intervals of keyboard keys within a range of 1/4 tone (50 cents) for easy tuning, use a non-conductive screwdriver (one with a resin grip).

㉖ Battery Compartment Lid
Open by sliding in the direction of the arrow.

㉗ Bar Code Reader (MS-1)
Connect to the MS jack to read the note pitch and length (duration) from the bar code score.

For the function and operation of each section, please refer to the relevant explanation.

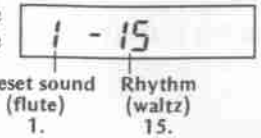
■Manual Play (How to play as a normal keyboard)

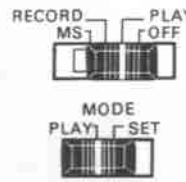
●First, let's try a few sounds.

This function permits free and easy playing of your favorite melody.

1. Set the Main Switch to PLAY.

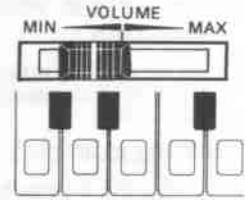
*The preset sound and rhythm which are presently set will be indicated on the display using numbers (or symbols).





2. Set the MODE switch to PLAY.

3. Set the VOLUME control switch as shown in the figure to the right.



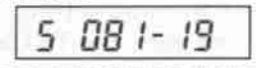
4. Ready to play?

*Let's play your favorite melody on the full 36-key keyboard (adjusting the volume to the level you want). Since there is a 4-note polyphonic which produces up to 4 notes simultaneously, you can also enjoy chord playing.

NOTE

If manual play is performed following Auto-Play (see page 14) or One Key Play (see page 16), the display will indicate the former play condition.

Ex.) See page 15 on how to read the display.



●Select one of the 10 preset sounds.

The Casio VL-TONE VL-5 has 10 preset sounds such as piano, flute, trumpet, etc. 4 preset sounds from among these can be selected and set into the TONE MEMORY selector switch. Preset sounds can then be alternated even during play by shifting the selector switch.

[How to set]

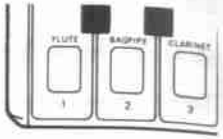
1. Set the Main Switch to PLAY.

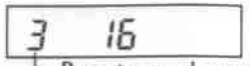
2. Set the MODE switch to SET.

3. Set the TONE MEMORY selector switch to any position (1 through 4).

4. Press the desired preset sound keyboard key (a white key from 1 through 10).

*Each key will produce a A (La) note of that preset sound, and number of the preset sound will be indicated on the left side of the display.





Preset sound number (In this case, a clarinet)

Note: For FUNNY, an " 8 " will be displayed.

If operations 3 and 4 above are repeated, 4 preset sounds can be set in TONE MEMORY 1 through 4.

5. Return the MODE switch to PLAY and setting is complete.

*Thereafter, the preset sound changes to one of the four sounds each time you move the TONE MEMORY selector switch.

[Setting example]

To set the trumpet sound to TONE MEMORY 1 and the piano sound to TONE MEMORY 2.

1. Set the Main Switch to PLAY.

2. Set the MODE switch to SET.

3. For trumpet setting, set the TONE MEMORY selector switch to position 1 and press the TRUMPET keyboard key (No. 5).

4. For a piano sound, set the TONE MEMORY selector switch to position 2 and press the PIANO Keyboard Key (No. 8).

5. If the MODE switch is returned to PLAY, thereafter, the trumpet or piano preset sounds can be played any time the TONE MEMORY selector is moved to position 1 and 2.

NOTES

- Even if the Main Switch is turned OFF, the set preset sounds will not be deleted and will remain in the memory. However, if the batteries are changed or the P Button is pressed, the set preset sounds will be deleted and the following 4 preset sounds will be automatically set in positions 1 through 4 of the TONE MEMORY.
  1=FLUTE 2=BAGPIPE 3=CLARINET 4=VIOLIN
- Move the TONE MEMORY selector switch slowly from one position to the next. If it is moved too quickly, it may not reproduce the preset sound, so please be careful.
  If this happens, re-operate the Main Switch and move the TONE MEMORY selector slowly.
- The prior set sounds in the Tone Memory will be automatically deleted when new preset sounds are input in the memory.

● How to use the Sustain Effect.

If the SUSTAIN button is pressed, " SUS " will be shown on the lower right of the display and a sustain effect (a lingering sound) can be obtained even if your fingers are removed from the keyboard. If the button is pressed again, the " SUS " will go OFF and sustain effect will be cancelled.

*The sustain effect is more effective if it is used according to the preset sound or playing style. When it is used for fast tempo auto-play, sounds will sometimes run together and be difficult to distinguish, so use it carefully.

● More fun from Auto-Rhyhtm.

There are 8 kinds of rhythm including waltz, rock, swing, etc. To increase the interest of the melody, select a rhythm which matches.

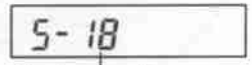
[How to set and produce a rhythm]

1. Set the Main Switch to PLAY.

2. Set the MODE switch to SET.

3. Press a rhythm key (15 — 22) for the desired rhythm.

*The rhythm will sound and its number (15 through 22) will be displayed.



Rhythm number
(In this case, Swing)

4. Return the MODE switch to PLAY.

*The rhythm will stop.

5. The selected rhythm will start or stop each time the START/STOP button is pressed.

*You can adjust the speed (tempo) and volume level using the TEMPO control switch and the BALANCE control switch.

Repeat operations 1 through 4 to change to another rhythm.

NOTES

- If the unit is left unplayed with the Main Switch turned on for more than 10 minutes, or when the Main Switch is turned OFF or set to MS position, the set rhythm will be cancelled and the WALTZ rhythm will be automatically set.
- While the rhythm is sounding, a dash "–" blinks on the display on the first beat of rhythm (between the preset sound number and the rhythm number), so the rhythm speed can be confirmed visually.

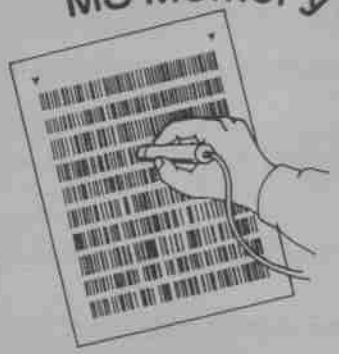
■Memory Play

●Memory Play Mechanism.

The VL-TONE VL-5 permits storage of note pitch and length (duration), so you can tap out melodies by One Key Play, which permits playing by simply pressing one key with the melody matching the rhythm. There are two storage methods, namely, a Casio original MS Memory and Manual Memory.

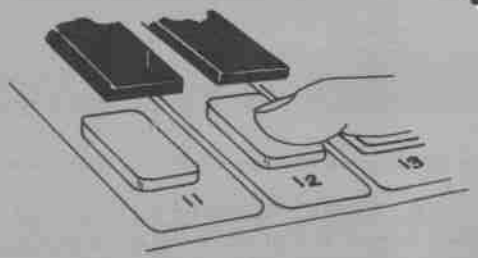
How to Store

MS Memory

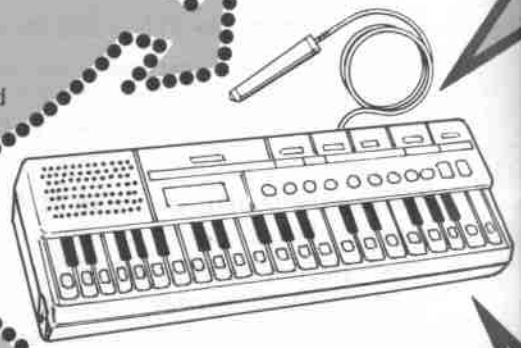


This is a method using the MS-1 Bar Code Reader for reading the bar coded musical score. It allows anyone to store music correctly and easily.

Manual Memory



This is a storage method using the keyboard keys and One Key Play. With it, you can store your favorite music coupled with your own ideas.

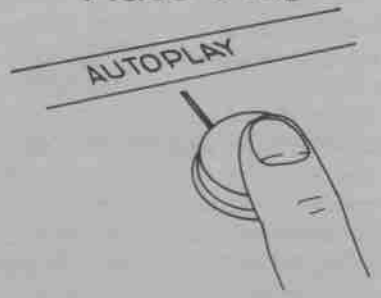


Easy Enjoyment

One Key Play

The melody can be played in time with the rhythm simply by the on-beat pressing of one key.

Auto-Play



The melody is automatically played in time with the rhythm.

In order to play using the VL-5 Auto-Play or One Key Play, first it is necessary to store the music using MS memory or manual memory. This manual explains each function by dividing them into respective sections so if it is read in the following manner, it can be more easily understood.

1

First let's store a selection in accordance with **"MS Memory"** (See the following page).

2

Then, perform Auto-Play of the stored music;
see **"Auto-Play"** (page 14).

3

One Key Play of the stored music can be done by following **"One Key Play"** (See page 16).

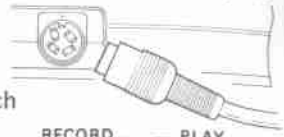
4

Store your favorite melody in accordance with **"Manual Memory"** (See page 17).

* After storage, enjoy re-play of the music using Auto-Play or One Key Play.

● MS Memory.

This is a storage method for reading note pitch and length (duration) from a bar code score using the MS-1 Bar Code Reader (standard accessory). This method permits anyone to use the memory simply and accurately.



[Storage Method]

Choose a selection from among the bar code musical scores which are provided.

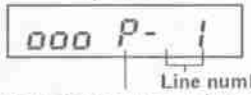
(1) Connect the MS-1 to the MS jack on the instrument.

(2) Set the Main Switch to MS.

* The display will appear as shown on the right.

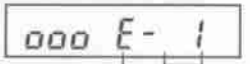
(3) Trace the first line of the "pitch" bar code from left to right using the tip of the Bar Code Reader.

- After a pleasant, "tinkle" (memory sound) comes out and the display is as shown on the right, proceed to the next line.



Line number
("L" when showing length (duration))
Indicates that the first line of note pitch has been stored.

- When a "gong" (error sound) comes out and the display is shown on the right, storage has not succeeded. Perform the operation again until you hear the "tinkle" sound.
  * When unable to proceed as desired, see "MS Memory Hints" on the following page.

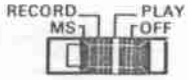


Error display Line number
Indicates an error on the first line.

(4) After the last line of the pitch has been stored, store the length (duration) using a similar operation.

- When the last line has been stored, the display will be as shown in the figure on the right.

(5) After the last lines of the pitch and length (duration) have been respectively stored, set the Main Swtich to PLAY and storage is complete.



Thereafter, enjoy playing by referring to "Auto-Play" (see page 14) and "One Key Play" (see page 16).

* This example shows storage beginning with pitch. However, storage may also be performed beginning with length (duration). Also, when performing One Key Play, pitch storage alone is adequate.

Hint

The melody is determined by the pitch and length (duration).
To enjoy Auto-Play, be sure to store both pitch and length (duration).
Since One Key Play is a method of playing where you yourself determine the length (duration) of the notes, storage of the Pitch only is sufficient.

NOTES

The contents stored by MS Memory will be deleted if one of the following operation is attempted;

- When a new melody is stored.
- When the batteries are replaced.
- When the P button is pressed.
- When the RESET button is pressed while pressing the DELETE button.

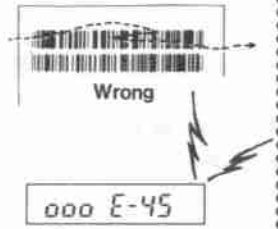
MS Memory Hints

Storage is straightforward if you follow the instructions below.

- Place the bar code score on a flat surface such as a table. It cannot be read well while holding it in your hand.

- The Bar Code Reader should be held approximately at right angles to the bar code score.
- Move the Bar Code Reader from left to right across the bar code score as smoothly as possible keeping within the bar portion.
- Move the Bar Code Reader from the blank portion of the line from left to right in one continuous sweep.

- The Bar Code Reader may lightly touch the bar code score but do not press too hard or have it too far away from the bar code.
- Move the Bar Code Reader in a sweeping action (approximately one line per second). If it is moved too slowly or too quickly it will not read properly.



- Store in sequence from the first line to the last line. If even one line is skipped, subsequent storage cannot be performed.
- When you hear the error sound ("gong"), repeat the sweep after confirming the error location by using the display.

Bar Code Handling Precautions

Storage cannot be performed if the bar code score is scratched, damaged or strained, so take the following precautions.

- Do not fold or wrinkle.
- Do not allow it to become dirty or wet.
- Do not write on it with a pencil, etc.

**Since high precision technology is required for the bar code, it is almost impossible to make it yourself.*

Note: *Disconnect the MS-1 whenever possible to avoid unnecessary battery consumption.*

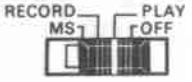
● Auto-Play. Main Switch → "PLAY"

This is an enjoyable function which permits the music which has been stored using MS Memory (see page 12) or Manual Memory (see page 17) to be automatically played along with the rhythm by simply pressing one button.

[Method of Operation]

Store the music (pitch and length (duration)) in advance using MS Memory or Manual Memory.

(1) Set the Main Switch to PLAY.



(2) Set the preset sound and rhythm which match the stored music (see pages 7 and 9) and adjust the volume and tempo.

Note: Replace the MODE switch to "PLAY" after setting preset sound and rhythm.

(3) Press the RESET button.

- The display will be as shown in the figure below.

Number of the preset sound which has been set.

(4) Press the AUTO-PLAY button. Automatic play will begin.

■To reset or replay Auto-Play:

- To stop along the way . . . . Press the RESET button.
- To replay . . . . . Press the RESET button and then press the AUTO-PLAY button.

**If the AUTO-PLAY button is pressed during play, playing will stop and if the AUTO-PLAY button is pressed again, playing will begin from that location. However, in this case, only the melody will be played.*

■To play repeatedly:

After the operation (3) in the above example, press the REPEAT button the number of times that repeat play is desired.
The melody will be repeated the same number of times pressed.

**It is also possible to press the REPEAT button during auto-play.*

■Shifting of preset sounds, volume and tempo:

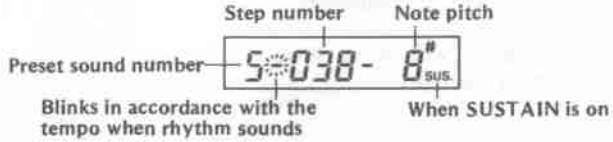
Preset sounds can be changed even during play by switching the TONE MEMORY selector switch. Also, volume and tempo can be freely adjusted using the VOLUME control switch, BALANCE control switch and TEMPO control switch.

Note: If the START/STOP button is pressed during Auto-Play, the rhythm will stop and only the melody will be played.

■Reading the display during Auto-Play:

During Auto-Play, the preset sound number, step number, note pitch and sustain mark (when SUSTAIN is on) will be displayed.

**The note pitch will be displayed according to the number on the keyboard key and for sharps, a "#" will be displayed.*



Hint

Try overlap playing!

During Auto-Play, up to 2 notes can be produced simultaneously from the keyboard keys. Therefore, playing can be more enjoyable by adding harmony or obligate to the Auto-Play melody. In addition, various playing methods can be devised.

●One Key Play. Main Switch → "PLAY"

Each time ONE KEY PLAY key is pressed, the music which has been stored using MS Memory or Manual Memory emerges. This is a function which permits anyone to enjoy playing by using one finger.

[Method of Operation]

Store the music in advance using MS Memory or Manual Memory.
*Foe One Key Play, storage of note pitch alone is sufficient.

(1) Set the Main Switch to PLAY.

(2) Set the preset sound and rhythm which match the stored music (see pages 7 and 9) and adjust the volume and tempo.

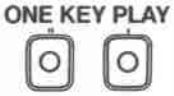
*When performing One Key Play of the melody only, rhythm and tempo operation are not required.

(3) Press the RESET button.

●The display will be as shown as in the figure on the right.

Number of the preset sound which has been set.

(4) Press ONE KEY PLAY key, and play starts.



●Press the key rhythmically in tune with the melody.
●Either of the two ONE KEY PLAY keys may not be pressed or both can be pressed at random.
●If ONE KEY PLAY key is pressed once more after the last note comes out, the rhythm stops and play is complete.

*To stop along the way or restart One Key Play from the beginning, press the RESET button.

NOTES

If One Key Play is performed using continuous sounds (preset sounds which continue to sound while the keyboard key is being pressed) such as flute, violin, trumpet, etc., even if your finger is removed from ONE KEY PLAY key, the note will continue to sound until the key is pressed again (this so called, hold effect). When using One Key Play, after the last note of the music comes out, if ONE KEY PLAY key is pressed one more time or if the RESET button is pressed, the sound will stop.

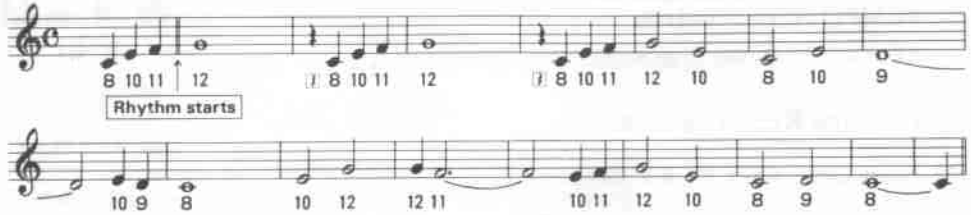
Hint

It is rather difficult for a person who is not familiar with rhythm to perform One Key Play of the melody while following the rhythm. If you cannot follow the rhythm, set the BALANCE control switch to the MELODY side and practice One Key Play of the melody only.

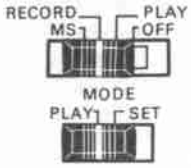
●Manual Memory.

This is a method of storing note pitch and length (duration) yourself by using the keyboard keys and ONE KEY PLAY keys. Storage of your favorite music can be done directly.

[Storage Method]

Example: "When the Saints Go Marchin' In" (American folk song)

A. Store the note pitch.

(1) Set the Main Switch to RECORD and MODE switch to PLAY.



(2) Press the RESET button while pressing the DELETE button and clear the memory contents.

(3) Press the keyboard keys in accordance with the numbers below.
Press the RHYTHM button at the location where the rhythm starts and press the REST button where a rest (𝄽) is shown.

8 10 11 RHYTHM 12 𝄽 8 10 11 12 𝄽 8 10 11 12 10

8 10 9 10 9 8 10 12 12 11 10 11 12 10 8 9 8

- [8], [10], etc. denote the numbers of the keyboard keys to be pressed.
- If a mistake is made, press the DELETE button and then the correct key. (For details, see page 20.) To store again from the beginning, perform the operation again from Step (2) above.

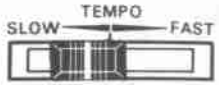
In the case of One Key Play, storage is complete after performing the above. For Auto-Play, continue with the operations below.

B. Storing the note length (duration)

(4) Set the rhythm which matches the music (Swing for this example).

*Return the MODE switch to PLAY after setting the rhythm.

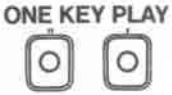
(5) Start the rhythm and adjust the speed using the TEMPO control switch.



*For a start, slower than normal is preferable.

(6) Press the RESET button.

(7) Press ONE KEY PLAY key, and play.



- Each time ONE KEY PLAY key is pressed, the notes stored using Step (3) comes out sequentially. Since rhythm starts from the designated location, you should be able to play in time with the rhythm.
- Remove your finger from the key at the rest location for as long as the rest period.
- After the last note comes out, press ONE KEY PLAY key once more in time with the rhythm. If it is pressed, the rhythm will stop and this completes storage.

*If you are not satisfied with your performance, press the RESET button and repeat the procedure from the beginning. The process may be repeated as many times as you like.

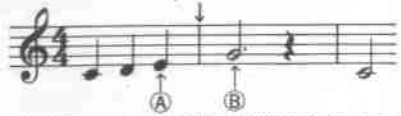
Manual Memory is complete after performing the above.
Enjoy playing in accordance with "Auto-Play" (see page 14) or "One Key Play" (see page 16).

■Operation of RHYTHM button and REST button

RHYTHM button

Press this button at the location where the rhythm starts. To start the rhythm at the same time as the melody, press this button first to designate the rhythm start location in the first step of the memory contents. To start the rhythm along the way, as shown in Example 1, press the button at the appropriate location.

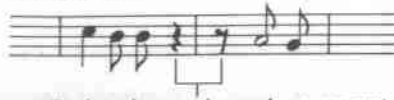
(Example 1) Rhythm starts from here.



In this case, press the RHYTHM button after storing Ⓐ.

REST button

This designates locations in the music where there are no sounds. Press this button at the locations where rest marks such as 𝄽, 𝄾 and 𝄻, etc. are shown on the music score. The length (duration) of the rest is determined by the period of time that ONE KEY PLAY key is not pressed during storage of note length (duration). Furthermore, when two rests are tied together between two measures as in Example 2, designation can be accomplished as one rest.

(Example 2)

Designation can be made as one rest.

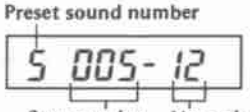
■The maximum allowable number of steps (equivalent to the number of notes that can be stored).

*At the time of storage, one press of a keyboard key or the REST button is called "a step".

A total of 240 steps of note pitch can be stored including the REST button and the RHYTHM start button operations.
When 240 steps have been stored, even if the keyboard keys are pressed, no storage occurs, and a high pitch sound will be produced.

■How to read the display during storage.

During storage, since the step number, note pitch, etc. are displayed, operation can be confirmed on the display. Up to 240 step numbers can be displayed, but no more will be shown even if the keyboard keys are pressed, as 240 steps is the maximum number possible.



*In the case of a sharp, a "#" is displayed. When the RHYTHM button is pressed, a " 𝄽 " is displayed. When the REST button is pressed, a " 𝄾 " is displayed.

When the Main Switch is set to RECORD or when the RESET button is pressed, the display will be as shown on the right.

NOTES

- If new storage is performed without clearing the previously stored items, the display will stop prior to reaching 240.

(Example) If new storage is performed without clearing the memory when 100 steps have already been stored, the display will stop after reaching 140 and further storage is not possible.

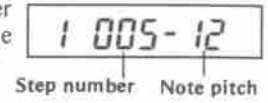
Therefore, when performing new storage, be sure to press the RESET button while pressing the DELETE button and clear the memory contents.

- As long as there are no more than 240 steps, two or more selections can be stored consecutively and played back by Auto-Play or One Key Play.

*Auto-Play cannot select a melody from the middle of those stored.

■ Correction of memory contents — Main Switch → RECORD

Memory contents can be corrected either during storage or after completion of storage. Correction is performed by setting the Main Switch to RECORD and using the following three buttons.



- **RESET button** . . . . . Press to restart (display will show 000).
- **FWD (Forward) button** . . . . . Advances one step each time it is pressed.
- **DELETE button** . . . . . The displayed step is deleted and the display will show the previous step.

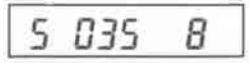
*After correction, store length (duration) once more (see page 18).

(Example 1) An error is noticed as soon it is stored.
Operation: Press the DELETE button once and press the correct key.

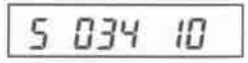
(Example 2) After storage, an error is noticed at step 35.
Operation:

(1) Set the Main Switch to RECORD and press the RESET button.

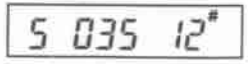
(2) Press the FWD button until the step display shows " 35 ".



(3) Press the DELETE button to delete the storage at step 35.



(4) Store the correct note pitch (or rest, etc.)



***Deletion/Addition Methods**

Deletion (To delete unnecessary storage) → Perform operations (1), (2) and (3) of Example 2.

Addition (To add missing storage) → Perform operations (1), (2) and (4) of Example 2. In this case, the addition will be made following step 35.

Hints

- When correcting, the same operation can be performed by using ONE KEY PLAY key instead of the FWD button.
  With ONE KEY PLAY key, since you can hear the stored notes, you can confirm their correct sequence by listening.

NOTE

To protect the contents of the Manual Memory, store the notes in which the last two digits of the step number are as follows.
01, 05, 09, 13, 17, 21, 25, 29, 33, 37, 41, 45, 49, 53, 57, 61, 65, 69, 73, 77, 81, 85, 89, 93, 97

To meet the above conditions, press the RHYTHM button the desired number of times at the location where the rhythm starts, or press the REST button between periods.

*Apart from the above conditions, the stored contents of the Manual Memory might change at the very last step if the unit is left unplayed with the Main Switch turned on for more than 10 minutes or when the Main Switch is turned off and turned on again.

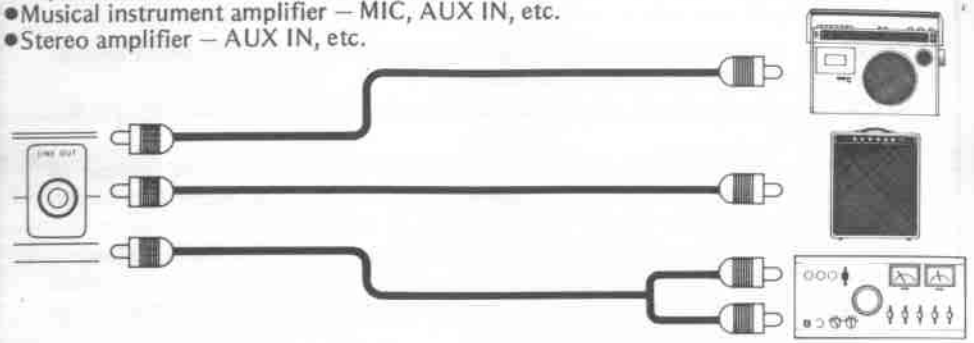
■External Equipment Connection

(Refer to the Operation Manuals of the respective external equipment.)

Line Out Jack is used when recording directly using a tape recorder and when producing sound using musical instrument amplifier or stereo amplifier.
Connection jacks differ depending upon the respective manufactures. Please refer to the operation manual of the respective equipment for proper jack connection.

The following are general conditions.

- Tape recorder – LINE IN, AUX IN, etc.
- Musical instrument amplifier – MIC, AUX IN, etc.
- Stereo amplifier – AUX IN, etc.



- When connecting to external equipment, the volume can be adjusted using the volume control of the VL-5. In this case, first set the volume control of the VL-5 to the minimum and then adjust appropriately aftet connection.
- Please use a connection cord which matches the specifications of the jack on the connected equipment.
  The Line Out Jack of the VL-5 meets mini-plug specifications.
- When connecting, be sure to refer to the operating manual of the equipment to be connected.

There are currently a variety of radio cassette tape recorders on the market with widely varying features.
Therefore, even if connectable to the VL-5, their sounds may sometimes be weak or inaudible. To obtain the proper effects with these units, the radio cassette to be connected must meet the following conditions.

1. The equipment should have a LINE IN jack.
2. The input impedance of the LINE IN jack should be 47K ohms or greater.
3. The equipment should have a speaker function.*

*The name of the function varies according to the manufacturer but we are referring to a function which permits the radio cassette deck to be used as a speaker or guitar amplifier.

*To determine whether or not the specifications or operation of the radio cassette deck meet the above conditions, please refer to its operating manual.

■Troubleshooting Chart

Symptom	Possible cause	Remedy
Sound does not stop.	One Key Play key has been pressed.	Press the RESET button. RESET
No sound emerges even when the keyboard key is pressed.	1. Mode Switch at SET. 2. Main Switch at MS.	1. Place the Mode Switch to PLAY. MODE PLAY SET 2. Place the Main Switch to PLAY. RECORD MS PLAY OFF
Slow Rock rhythm seems too fast.	Sounds fast due to multi-rhythm elements, but main tempo (high percussion note) is slower than normal rock.	This is not a malfunction.
MS Memory cannot be accomplished.	1. MS-1 Bar Code Reader is not connected to the MS jack. 2. Main Switch is set to other than MS position. 3. Storage method is unsuitable.	1. Connect the MS-1. 2. Set the Main Switch to MS position. RECORD MS PLAY OFF 3. See page 13.
Memory sound (a tinkle) or error sound (a gong) is not heard while MS Memory.	Volume control at its minimum.	Adjust volume control to adequate level. VOLUME MIN MAX

■Specifications

•Model	Casio VL-5
•Keyboard	37 keys (3 octaves)
•Chords	Maximum of 4 notes (4 note polyphonic)
•Preset sounds	10 preset sounds (Flute, Bagpipe, Clarinet, Violin, Trumpet, Pipe Organ, Harpsichord, Piano, Pretty and Funny)
•Tone memory	4
•Effect	Sustain
•Auto-rhythm	8 rhythms (Waltz, March, Rock, Swing, Samba, Rhumba, Slow Rock and Metronome) •START/STOP button, TEMPO control switch, BALANCE control switch
•Memory play	MS memory and Manual memory Number of stored notes – 240 steps •ONE KEY PLAY keys, AUTO-PLAY button, REPEAT button, DELETE button, FWD button, REST button, RESET button and RHYTHM button
•Display	Liquid crystal display
•Pitch control screw	± 1/4 tone (50 cents)
•Built-in speaker	6 cm (1/4") dia. x 1
•Line out jack	Output impedance – 4.7 kΩ Output voltage – 1.5 V max.
•Power supply	AC/DC 2-way power supply system AC: 100, 117, 220 or 240 V (±10 V), 50/60 Hz, with optional AC adaptor DC: Five AA size manganese dry batteries Battery life – The unit gives approximately 10 hours of continuous Auto-Play on type UM-3 batteries (approx. 10.5 hours on type SUM-3) under the following typical power conditions: •MS-1 connected to the unit. •Volume, Tempo control and Balance control switches set at the center positions. •The sound of Flute with Waltz rhythm selected. *In extreme power usage the battery life varies accordingly. For example, approx. 3 hours of continuous 4-note polyphonic playing on type UM-3 with the Volume switch set at max, the Balance control switch slid fully to the Melody position and the sound of Flute selected.
•Power consumption	4.5 W
•Dimensions	33H x 320W x 86mmD (1-5/16"H x 12-5/8"W x 3-3/8"D)
•Weight	614 g (21.7 oz) including batteries.

GUIDELINES LAID DOWN BY FCC RULES FOR USE OF THE UNIT IN THE U.S.A. (not applicable to other areas).

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart j or Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

..... reorient the receiving antenna
..... relocate the computer with respect to the receiver
..... move the computer away from the receiver
..... plug the computer into a different outlet so that computer and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful: "How to Identify and Resolve Radio-TV Interference Problems". This booklet is available from the US Government Printing Office, Washington, D.C., 20402, Stock No. 004-000-00345-4.